

## **Abstract**

The invention provides a garage door that can have enhanced preventive safety measures and equipment to accommodate precise and timely maintenance. It is mainly to add into the garage door control mechanism a transceiver that uses  
5 electromagnetic waves in the form of laser, infrared, or supersonic wave as distance-measuring and transmission medium, which is directly reflected to the transceiver through a moving roller. In this way, the distance between the moving roller and the garage door can be measured. The roller speed can be pre-determined, so it equals to the garage door speed. Besides, the preset roller  
10 speed can be compared to the actual roller speed. This comparison ratio is used as a precise reference to determine whether the closing garage door hits an obstacle or carry out preventive safety maintenance. Thus, accidents can be prevented when the garage door is closing. The invention provides enhanced preventive safety measures and equipment to accommodate precise and timely  
15 maintenance.